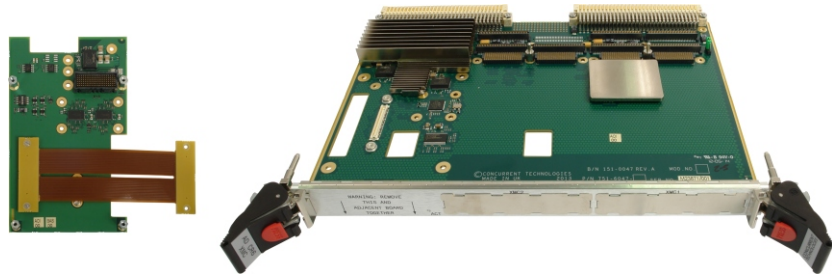


## Dual XMC/PMC Carrier Board



### APPLICATIONS

The AD CR6/XMC XMC/PMC carrier board provides a flexible solution for designers wishing to add functionality to 6U VME/VXS systems by using XMC or PMC modules. The carrier can accommodate two single or one dual width, PMC or XMC modules conforming to the IEEE 1386 Common Mezzanine Card standard. PMC modules supporting up to 100 MHz PCI/PCI-X or XMC

modules supporting up to x8 PCI Express® interfaces can be used. A wide range of modules can be supported such as SAS, SATA, LAN, WAN, graphics and communications controllers. For harsher environments, extended temperature versions are supported.

### HIGHLIGHTS

- Supports 2 single size XMC or PMC modules (or as one dual width module)
- A single PMC and a single XMC module can be used simultaneously
- XMC module interface supports:
  - x1, x2, x4 or x8 PCI Express® 2.0
- PMC module interface supports:
  - 5 Volt or 3.3 Volt signaling
  - 32/64-bit and 33/66/100 MHz PCI/PCI-X
  - Standard PCI bus expansion using a PCIe to PCI bridge
- High-performance mass storage interface:
  - 1 x SATA600 port for optional on-board 2.5-inch mass storage drive
- Front panel I/O, and rear I/O via P2 and P0 connectors:
  - rear I/O routed as differential pairs
  - rear I/O via XMC Pn6 and PMC Pn4 connectors
  - 182 rear panel I/O lines
- 5 Volt, +12 Volt and -12 Volt provided for XMC and PMC modules via VME backplane
- Extended temperature versions (E-Series, K-Series):
  - E: -25°C to +70°C, air-cooled
  - K: -40°C to +85°C, humidity sealant, air-cooled
- For use with a range of Concurrent Technologies VME/VXS XMC host processor boards
- Operating System support depends upon the Concurrent Technologies XMC host processor board

## 6U VME Dual PMC/XMC Carrier

- 6U VME® dual PMC/XMC Carrier supports:
  - 2 single size XMC/PMC modules (or as one dual width module)
  - a single PMC and a single XMC module can be used simultaneously
  - module power 25W per site maximum
  - non-Monarch Processor PMC modules and endpoint XMC modules
- commercial air-cooled

## XMC and PMC Interfaces

- XMC module interface capabilities:
  - x1, x2, x4 or x8 PCI Express® (PCIe) (Gen1 or Gen2)
  - logical and electrical layer meets specification PCI Express 2.0
- PMC module interface capabilities:
  - 5 Volt or 3.3 Volt signaling
  - 32/64-bit and 33/66/100 MHz PCI/PCI-X
  - logical and electrical layer meets specification PCI-X 1.0
- complies with CMC (Common Mezzanine Card) standard IEEE 1386-2001 and PMC (PCI Mezzanine Card) standard IEEE 1386.1-2001
- front panel I/O, and rear I/O via P2 and optional P0 connector:
  - can connect to an optional Rear Transition Module
- site 1 I/O via P2:
  - 64 I/O from Pn4 routed as differential pairs (VITA 35) P4V2-64ac
  - 32 I/O from Pn6 routed as x12d+x16s
- site 2 I/O via P0:
  - x20d+x38s from Pn6
  - +3.3V for XMC/PMC modules generated on board from VME +5V supply.

## Mass Storage Interface

- optional on-board 2.5-inch SATA600 hard-disk drive (HDD) or solid-state drive (SSD)

## BIOS EEPROM

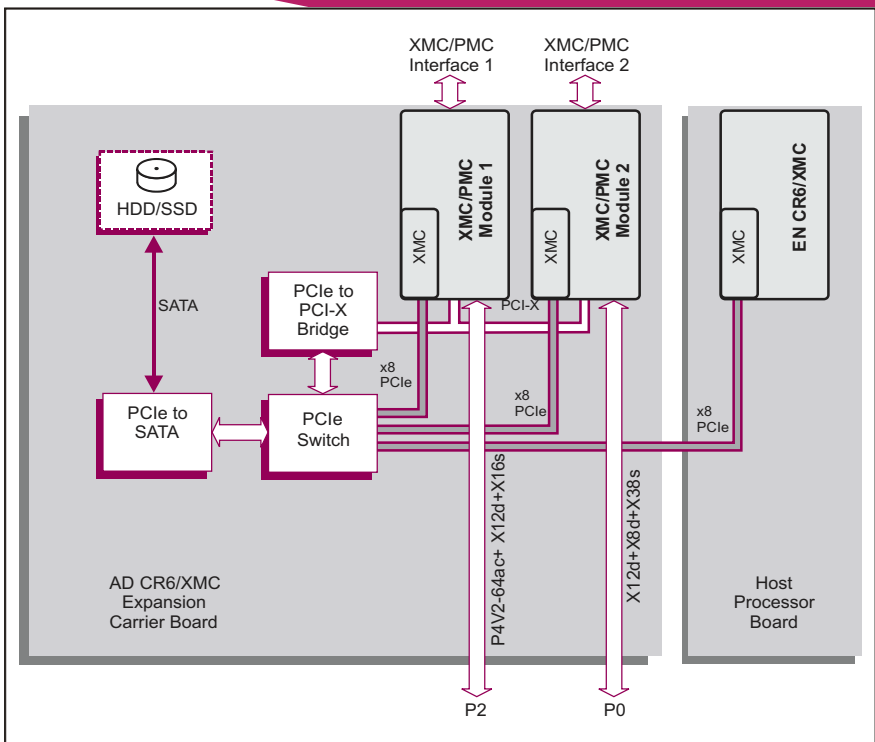
- 4Mbit SPI Flash EEPROM with BIOS firmware to support OS Boot
- In-circuit programmable

## Adapter Interface

- connects to a compatible VME XMC host processor board:
  - implemented using the IDT PES32NT8AG2 PCIe switch
  - PCIe x4 or x8 (Gen 1 or Gen 2)
  - utilizes PCIe base specification

## Software Support

- adapter interface features a standard PCI to PCI bridge software architecture:
  - XMC modules appear on the additional PCI buses
- Operating System support depends upon the Concurrent Technologies host processor board



## Electrical Specification

- +5V @ 2.0A maximum (excluding mass storage and XMC modules)
- +12V @ 0.0A; -12V @ 0.0A;
- 3.3V not required
- +12V and -12V routed to both sites

## Environmental Specification

- operating temperatures:
  - 0°C to +55°C (N-Series)
  - -25°C to +70°C (E-Series)
  - -40°C to +85°C (K-Series)
- storage temperature: -40°C to +85°C
- 5% to 95% Relative Humidity, non condensing (operating or storage):
  - K-Series includes humidity sealant

## Mechanical Specification

- 6U form-factor
- single slot, front panel width 0.8-inch (20.3mm)
- utilizes 160-way connectors for P1 and P2
- optional P0
- shock: 20g, 11ms, ½ sine
- vibration: 5Hz-2000Hz at 2g, 0.38mm peak displacement

## ORDERING INFORMATION

### Order Number Product Description (Hardware)

AD CR6/XMC-yz Dual XMC/PMC Carrier Board without P0 Connector

For extended temperature variants, E or K-Series, please contact your local sales office